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FIGURES

FIG. 1

AC CCAGTTCCCA CTTCTCCAAT TCCTTCGTTCC CCTTCCCAAGCTCCAACCCCAAAAGAAAA 60

ACTCAAAGTCAAGAAACTAACAGAAAGAGCCACAACTCATCTATTCTTGAGGGCTTCTTGCC 120

ATTTTTCATCCTTGTAACAAATGGAGTTCGCAAATCAAGCACCTGAGAGCTCTACCCAAAA 180
                      N E F A N Q A P E S S T Q K

AAAATGGCAAGAGGCAAAAGTCACATCAAGCCGATCCAAAACACTAGGAATGCAGAAGC 240
      K W G R G K I S K S I S N S T W S S Y   MADS-domain

CACCTTCTGCAAACGCCGCAACGGATTGCTTAAGAAAGCCTATGAATTGTCTGTTCTTGC 300
      T F C K R R N G L L K K A Y E L S V L C

TCATGCTCAAGTTGCTCTTATCGTCTTCTGCACCCGTGGCCGCCCTTATGAGTAGCTAA 360
      D A Q V A L I V F S T R G R L F E E A N

CAACAGCGTTACAGCAACAATCGACAGGTACAAAAAGCATCCGCTGATCCTACGGACGG 420
      N S V T A T I D R I K E A C S S T G G   K-domain

GTTCATCTGCAAGAGAACGTAAGAGCCACCCTTAGCACGAGCAAGGATCAAAGTCGCAAG 480
      Q S V S R A N T Q F Y Q E A H K L R R

ACAGATCCGAGAAAATTCAGAATTCAAACAGGCATATACTGGGGGAATCCCTTAGCACCT 540
      Q I R E I Q N S K R H I S S H S L S P L

GAAAGTCAAGGACTGAAAAACCTAGAAGGGAGATTCGAGAAAGGAATCAGCAGAATAAG 600
      K V K E L K N E E G S L E K G L E S I R

ATCCAAAAAGGAATGAAATCCTGTTTCTGAAATCGAATTCATGCAAAAGAGGCAGACTGA 660
      S K K N E I L F S E I E T H Q K R E F K

GCTGCAACACCACAAGAATTTTGTGAGAGCAAGATAGCCGAAAGCCAGAGCGAACAGCA 720
      L Q H H K N F V R A R I A E S S R E Q Q

GCAGCAGCAAACACATATGATTCCGGGAACTTCCTACGATCCGTCCATGCCTTCGAATTC 780
      Q Q T H M I P G T S Y D P S M P S N S

GTATGACAGGAACTTCTTCCCTGTGATCTTGGAGTCCAATAATAACCATTACCCTTGGCCA 840
      Y D R N F F P V I L E S N N H Y P R Q

AAGGCCAGACAGCTCTCCAACCTTGTTTGAAATGCTGGACTGCCGTCTGATGTTCTCCTACC 900
      Q Q T A L Q L V .

CATATTGTTCTGAATCTGTGCTGCATAAATCGATGAGATAAATCGACCGTGCTAGTTTCATCGGA 960

TATCCCACAACCACTTTCGTCATCCTTCTCCATAACTTATATATCCGTCATCATCCACCCCC 1020

AATTCTGTGATAACATATATCACTAAATTTCATTTCCTCACCCCGA 1065

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FIG. 2

GCAATTCTTCCTTCCCGTTGCCAAGTGCAACCCCAATAGAAAAACTCAAAGTCAAGAACT 60

AGCTAACAGAGAAAACCACAATTCATCAATTTGGAGGGGTTTTTGCCATTTTTCATCCTT 120

GCAACAATGGAGTTCCCAAATCAAGCACCCGAGAGCTCCTCCCAGAAAAAAATTGGGAAGG 180
      M E F P N Q A P E S S S Q K K L |G R| MADS-BOX

GGCAAAATTGAGATTAAGCGGATCGAAAACACTACAAATCGACAAGTTACCTTCTGCAAA 240
|G K I E I K R I E N T T N R Q V T F C K|

CGCCGCAACGGATTGCTTAAGAAAGCCTATGAATTGTCTGTTCTTTGTGATGCTGAAGTT 300
|R R N G L L K K A Y E L S V L C D A E V|

GCTCTTATCGTGTTCTCCAACCGTGGCCGCCTCTATGAGTATGCTAACAACAGTGTTAGA 360
|A L I V F S N R G R L Y E Y A N| N S V R

GCAACAATCGACAGGTACAAAAAAGCATACGCTGATCCTACGAACAGTGGATCTGTTTCA 420
A T I D R Y K K A Y A |D P T N S G S V S| K-domain

GAAGCCAACACTCAGTTTTATCAGCAGGAAGCATCCAAACTGCGAAGACAGATCCGAGAA 480
|E A N T Q F Y Q Q E A S K L R R Q I R E|

ATTCAGAATTCAAACAGGCATATACTGGGTGAAGCTCTTAGCTCCTTGAACGCCAAGGAA 540
|I Q N S N R H I L G E A L S S L N A K E|

CTGAAGAACCTAGAAGGAAGGATTGGAGAAAAGGAATCAGCAGAATAAGATCCAAAAAGAAT 600
|L K N L E G R L E K G I S R I R S K K N|

GAAATGCTGTTTTCTGAAATCGAATTCATGCAAAAAAGGGAGACCGAGCTGCAACACCAC 660
|E M L F S E I E F M Q K R E T E L Q H H|

AACAATTTTCTGAGAGCAAAGATAGCTGAAAACGAGAGGGAAGAGCAGCAGCATACACAC 720
|N N F L R A K I A E| N E R E E Q Q H T H

ATGATGCCGGGAACTTCCTACGATCAGTCAATGCCTTCGCATTCTTATGACAGGAACTTC 780
M M P G T S Y D Q S M P S H S Y D R N F

CTCCCAGCGGTGATCTTGGAGTCCAACAATAACCATTACCCTCACCAAGTCCAGACAGCT 840
L P A V I L E S N N H Y P H Q V Q T A

CTCCAACTTGTTTGAAATGCTGGACTGCCGTCTGAT 876
L Q L V .

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FIG. 3

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1    M E F A N Q A P E S S T Q K K L G R G K I E I K R I E N T T    MdMADS14
1    M E F P N Q A P E S S S Q K K L G R G K I E I K R I E N T T    MdMADS16

31   N R Q V T F C K R R N G L L K K A Y E L S V L C D A E V A L    MdMADS14
31   N R Q V T F C K R R N G L L K K A Y E L S V L C D A E V A L    MdMADS16

61   I V F S T R G R L Y E Y A N N S V R A T I D R Y K K A C A D    MdMADS14
61   I V F S N R G R L Y E Y A N N S V R A T I D R Y K K A Y A D    MdMADS16

91   S T D G G S V S E A N T Q F Y Q Q E A S K L R R Q I R E I Q    MdMADS14
91   P T N S G S V S E A N T Q F Y Q Q E A S K L R R Q I R E I Q    MdMADS16

121  N S N R H I L G E S L S T L K V K E L K N L E G R L E K G I    MdMADS14
121  N S N R H I L G E A L S S L N A K E L K N L E G R L E K G I    MdMADS16

151  S R I R S K K N E I L F S E I E F M Q K R E T E L Q H H N N    MdMADS14
151  S R I R S K K N E M L F S E I E F M Q K R E T E L Q H H N N    MdMADS16

181  F L R A K I A E S E R E Q Q Q Q Q T H M I P G T S Y D P S M    MdMADS14
181  F L R A K I A E N E R E E Q Q H - T H N M P G T S Y D Q S M    MdMADS16

211  P S N S Y D R N F F P - V I L E S N N N H Y P R Q G Q T A L    MdMADS14
210  P S H S Y D R N F L P A V I L E S N N N H Y P H Q V Q T A L    MdMADS16

240  Q L V  (100%)                                                 MdMADS14
240  Q L V  (88.4%)                                                MdMADS16
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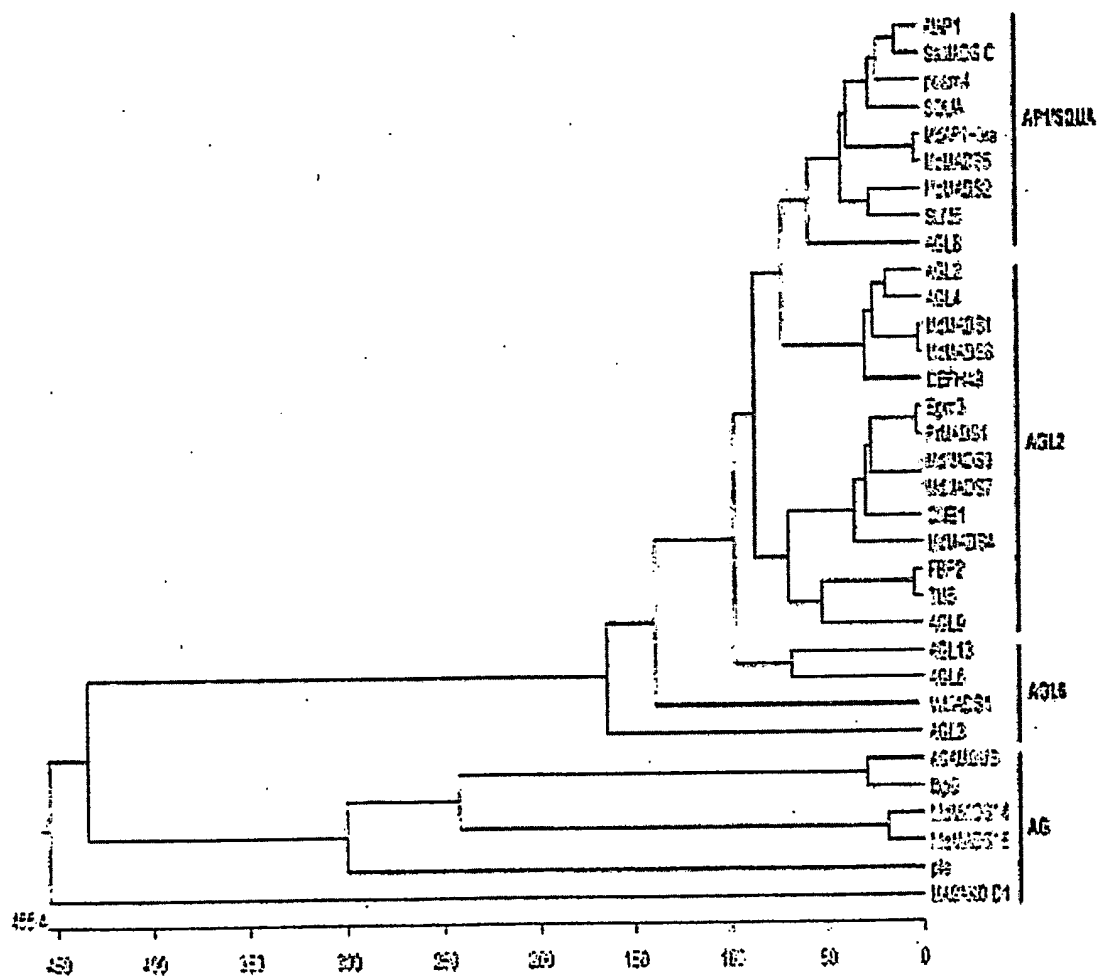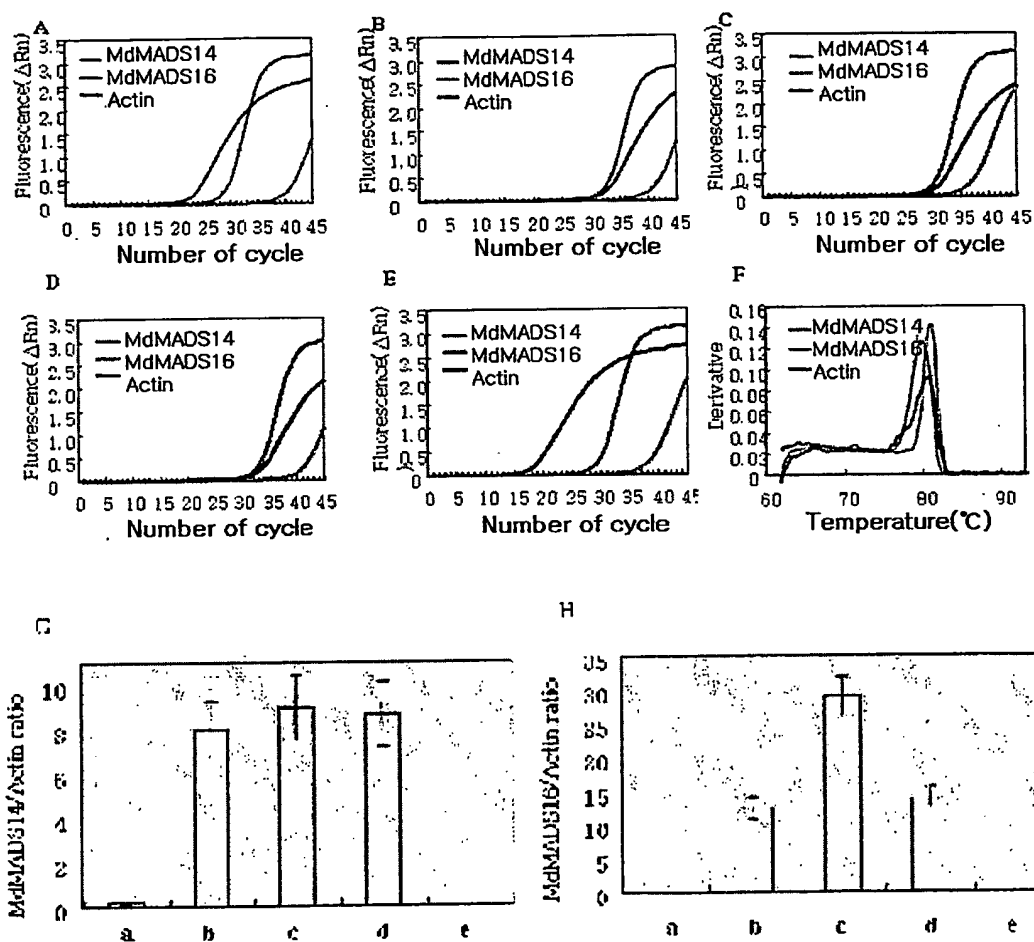
FIG.4

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FIG. 5

FIG. 6
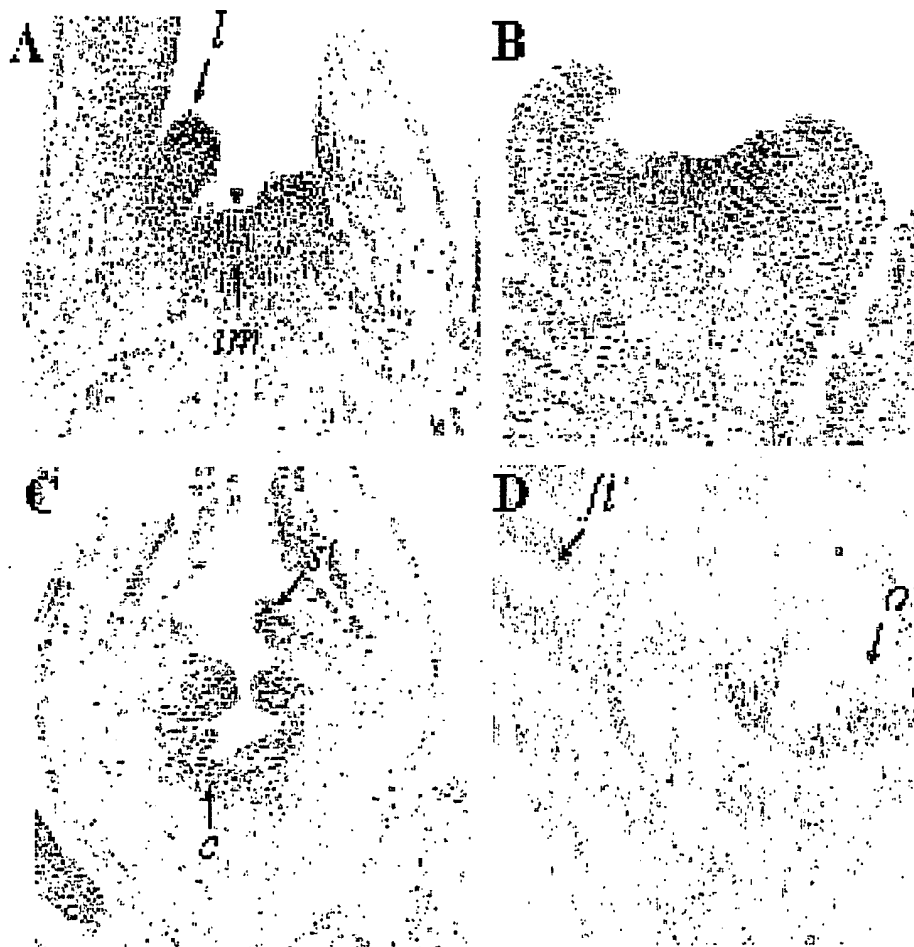
FIG. 7
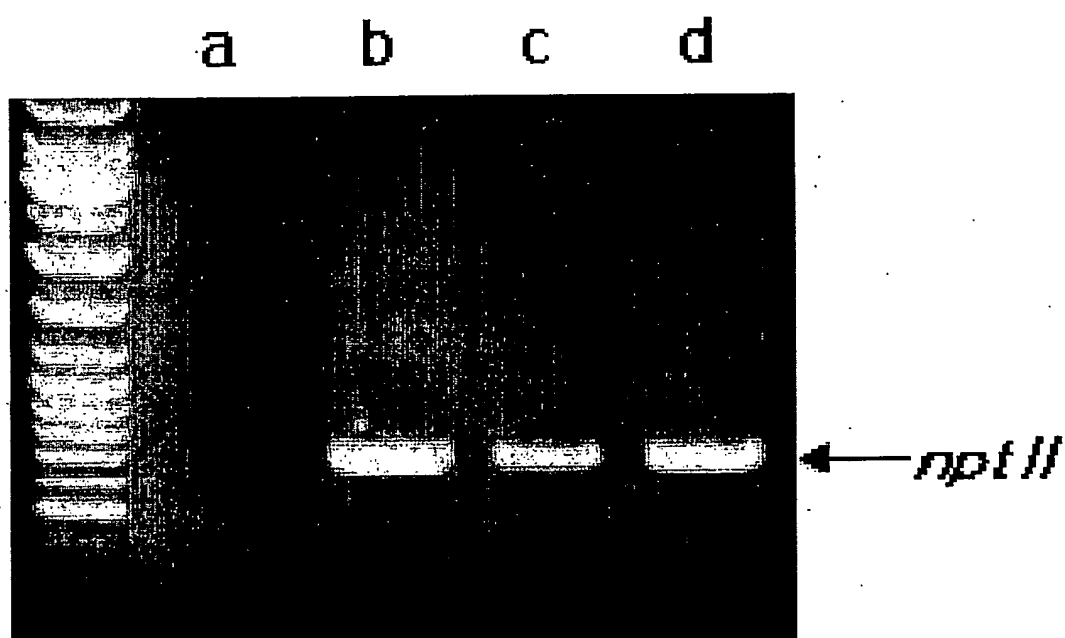
FIG. 8

Wild type   MdMADS14
Sense 1